

12. VERMONT

(1999 Utility Statistics from www.eia.doe.gov)

Population: 613,090

Net Summer Capability (MW) 992

Electricity Consumption (MWh) 5,637,619

	Investor- Owned	Public	Federal	Coop- erative	Total
Number of Utilities	6	15	0	2	23
Percentage of Retail Sales	83.0	13.5	0	3.6	100.0
Mechanism:	Energy Efficiency Charge not > 2.9 mills/kWh				
Creation:	Legislative and Regulatory				
Duration:	EEC budgets approved through 12/31/05. No sunset legislation.				
Administrator:	Independent Energy Efficiency Utility (EEU)				
	EEU contract renewed for three years, through 12/31/05				
Budget:	Not to exceed \$17.5million/year. Presently about \$14million/year				

Survey Questions

1. Process and timeline

- 1999 law (S137) gave the Vermont Public Service Board (PSB) authority to establish volumetric wire charges to fund statewide EE through a non-utility entity, replacing utility programs. Set an annual budget limit for statewide programs of \$17.5million/year (approx. 3.3% of Vermont's total electric bill)
- September 30, 1999 (Docket 5980) PSB approved the Memo of Understanding (MOU) supported by the State, utilities, business, and environmental and efficiency advocates. The parties agreed that the PSB would approve and order an EEU to deliver statewide energy efficiency programs. It defined a set of seven initial "Core Programs" that would be implemented statewide. The MOU outlined the new administrative structure, operational and fund-handling details of the EEU. It relieved VT distribution utilities of obligation to deliver energy efficiency programs, but made provisions for certain utilities to implement core programs in their service area. It established a schedule for implementation of the EEU, including formation of the Transition Working Group to achieve an orderly transfer of programs from utilities to the EEU. The MOU set initial five year budgets for the EEU and determined that initially the EEC would be individually set with each utility. It also outlined the continuing role and responsibility of electric distribution utilities.
- December, 1999 PSB chose Vermont Energy Investment Corporation (VEIC) from a field of six competitors to serve as the EEU contractor.
- March, 2000 the EEU Program dba "Efficiency Vermont" began operation.

2. Organizational structure

Vermont Public Service Board (PSB): The PSB makes final determinations regarding the EEU's performance and contract renewal. It establishes EEC annually. It issues RFPs, and hires the EEU contractor, Contract Administrator, and Fiscal Agent. It approves EEU plans, programs and major budget modifications annually. It appoints the Advisory Committee and reports annually to the legislature on EEC revenues.

Energy Efficiency Utility (the EEU): The PSB issued an RFP for an EEU contractor, which could not be an agent of a distribution company. The contract was awarded to a non-profit Burlington-based consortium anchored by VEIC, Inc. The result is a single, statewide non-utility entity dba "Efficiency Vermont" (EVT). EVT provides statewide administration of the Core Programs and any "System-wide" energy efficiency programs approved by the PSB. EVT is responsible for program administration, design, marketing, delivery and implementation under terms of an extensive and detailed contract with PSB.

EVT has chosen to implement many programs using their own staff, rather than subcontracting activities. Staffing levels at EVT are about 70 FTE. Close to 50 are directly involved in business or residential program implementation. The rest are involved in customer service, IT, marketing, business development, accounting, etc.

The initial contract was a three-year, performance-based contract, renewable for up to three more years. The contract was recently renewed through 12/31/05. The new contract continues to be performance-based, but with less program-specific measures. The new contract increases EVT's flexibility to target resources across programs.

Contract Administrator (CA): The PSB issued an RFP and hired an independent contractor. The CA handles day-to-day EEU contract administration responsibilities on behalf of the PSB. The CA also resolves disputes concerning the EEU's performance and refers them to the PSB if settlement not reached. The CA also works with DPS to define and verify the EEU's compliance with contractual performance indicators. Time required to meet these responsibilities has varied but is presently 0.75 FTE.

Fiscal Agent (FA): The PSB issued an RFP and hired an independent contractor. The FA's primary responsibility is to receive EEC funds from the distribution utilities, and disburse them upon approval by the CA to the EEU, the DPS (for EEU evaluation efforts) and other relevant entities. The FA reports directly to the PSB and provides the PSB with monthly, quarterly, and annual financial statements and accounting reports. Funds collected never become funds of the State. The FA is presently National Exchange Carrier Association (NECA), a nationally known organization that also handles finances in the telecommunications industry.

Vermont Department of Public Service (DPS): The DPS serves as Vermont's consumer advocate and energy office. It provides evaluation of PSB-approved EEU programs, including annual verification of savings claims, usually through contracts with independent consultants. After approval by the CA, the FA reimburses the DPS for these evaluation

activities from the EEC funds. The 2003 budget for Program Evaluation by DPS is \$462,000.

The DPS also updates avoided cost calculations used in EEU program and measure screening. The DPS advises the PSB on economically achievable energy efficiency potential, and makes recommendations regarding EEU program changes and budgets. Although no single individual at the DPS works full-time on EEU activities, over the course of a year, EEU matters will require 3-3.25 FTE of staff effort.

Advisory committee: The PSB appoints an advisory committee to the EEU to provide substantive input on program design, annual re-allocation of program funds and other issues. The Advisory Committee includes representatives from the DUs, consumers, the DPS, and others deemed necessary by the PSB. It meets at least quarterly, generally six times per year, to provide advice to the EEU. It has no budget or authority. The EEU may also develop other advisory committees itself, e.g. for specific market segments, as needed.

The MOU includes specific procedures utilities must follow to deliver Core Programs in their service areas. Burlington Electric Department (BED) offers the Core Programs in its service territory. Washington Electric Cooperative (WEC) implemented a Residential New Construction Program (a Core Program) in its service area.

3. Funding mechanisms

S.137 sets a maximum annual budget of \$17.5million for the total EEU, approximately 3.3% of Vermont's total electric bill. The MOU set another limit. During the first five years the EEC could not exceed the equivalent of 2.9mills/kWh of total statewide retail sales. These funds presently cover at least the following expenditures each year:

- The EEU contractor costs, including performance incentive fees;
- Customer Credit Program costs;
- BED "Core Program" implementation costs;
- DPS evaluation costs;
- Contract Administrator costs;
- Fiscal Agent costs;
- Independent audit of the EEC fund; and
- Costs for advertising the new EEC rate.

Through 2002, the methodology for calculating the EEC was based on revenues. The EEC rate varied by utility, based on factors unique to each service territory, and was set individually with each company in bilateral agreements or individual rate cases. It was based in part "on a reasonable estimate of eligible markets for the core programs in each service territory." (MOU) "The EEC has been set for each year in an annual contested case proceeding." (DPS Report, May, 2002.) For utilities that had active DSM spending at the time of the MOU, the EEC was often offset by rate reductions during the initial three-year period (2000-2002). The average annual funding over the first 5 years was expected to be about \$13million/year.

In their May 2002 report the DPS recommended basing the 2003 calculation on kWh usage with a "uniform volumetric charge". However, due to concerns from the business community, industrial ratepayers and others, DPS modified its proposal. The 10/31/02 PSB Order (Docket 6741) approved a combination revenue and usage-based methodology. The exact amount to be collected from each utility was set in this Order as well. As a result of this calculation methodology, just as in 2002, residential customers pay 44 percent of the total amount collected via the EEC (while using 38 percent of Vermont's electricity). Business and non-residential customers pay approximately 56 percent of the total EEC charges (while using 62 percent of Vermont's electricity).

The \$14million 2003 budget for all EEU-related activities established by the 12/30/02 PSB Order represents a decrease from the amount of \$16,172,252 agreed to by the PSB in August 2002. This was due to vigorous advocacy by some business and industry representatives to improve the business climate by reducing the immediate cost of electricity. The DPS "with reluctance, during a time of intense economic pressure" proposed the reduced amount and PSB agreed, with a strong dissenting opinion written by the PSB Chair.

Burlington Electric Department (BED) In the MOU, BED contracted to deliver the Core Programs in its Service Territory. Implementation was funded by a "revolving loan" fund from a bond issued in the early 90's, so no EEC was levied on BED customers during the first three years. Also, the funds spent on Core Program activities were not separated out on BED customer bills. Beginning in 2003, the PSB and BED agreed to include BED customers and programs in determining the EEC for the year.

4. Degree of association with a long run resources plan.

The EEU has a strong association with long run resource planning. The distribution utilities (DU) in Vermont are required to prepare a least-cost integrated plan (IRP) for provision of electricity services every three years. The law defines a least-cost integrated plan as "a plan for meeting the public's need for energy services, after safety concerns are addressed, at the lowest present value life cycle cost, including environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution capacity, transmission and distribution efficiency, and comprehensive energy efficiency programs." All 22 DUs will file IRPs during 2003 and 2004.

According to the MOU, the DUs' responsibilities will now include least cost transmission and distribution system planning and implementation. As long as the PSB finds that the System-wide programs of the EEU are satisfying existing statutory and regulatory requirements for energy efficiency programs, the DUs will only be obligated to include strategic DSM when it can cost-effectively achieve delay or avoidance of transmission and distribution investments. If, for any reason, the PSB finds the EEU structure or programs inadequate for meeting existing requirements, the DUs would resume those responsibilities as well.

According to the MOU, the DUs must "maximize coordination among themselves and with

the EEU for planning inputs and implementation capability." The EEU is required to make customer-specific data available to the DU serving the customer, for use in DU planning, load forecasting, DSM program planning, distributional equity determinations and other specified purposes. The MOU anticipates that the EEU will have a role in the implementation of DSM related to transmission and distribution planning.

5. Guidelines for program effectiveness and success (upfront)

The overall scope of work to be accomplished by the EEU was laid out in Attachment A of the original contract:

- Achieve the maximum magnitude of societal net benefits;
- Shift from utility-based to market-based energy efficiency;
- Increase the emphasis on market transformation strategies; and
- Effectively capture "lost opportunity" markets.

These were modified slightly as seen in Attachment I of the 2003-2005 contract:

- Achieve the maximum magnitude of societal net benefits while acquiring comprehensive cost-effective electric efficiency savings;
- Respond appropriately to markets in order to increase the level of and comprehensiveness of energy efficiency services to Vermonters;
- Effectively capture potential "lost opportunity" markets; and
- Strive for distributional equity across customer classes and geographic regions.

The original EEU contract with PSB included detailed performance indicators including quantified goals for:

- Cumulative annual energy savings* of 83,592 MWh;
 - Committed Electricity Savings Target of 4,700 MWh;
 - Total Resource Benefits at the end of three years, as well as 33 additional activity milestones and performance indicators.
- *This figure refers to the sum of new energy savings acquired or effected each year. Cumulative savings, taking into account measure life, would be much larger.

The renewed three-year EEU contract continues to be performance-based. Goals include, but are not limited to:

- Cumulative annual energy savings* of 117,373MWh;
 - Committed Electricity Savings Target of 6,200 MWh;
 - 14.834 MW summer peak reduction*;
 - Total Resource Benefits* of \$74.5million (in 2000 dollars);
 - Double market share of Energy Star homes;
 - Increased participation of small business in EVT programs;
 - Less activity milestones since programs are operational; and
 - Goals organized more by sector, less by program, compared to firstcontract.
- *Some of these goals were modified downwards to reflect the reduced budget decision made by the PSB on 12/30/02.

BED had an initial three-year goal of 4148 cumulative annual MWh savings and other

performance indicators. The Commercial and Industrial Customer Credit Program ("Customer Credit Program") had a three year goal of 5163 MWh.

6. Pre-implementation program evaluation guidance

"The Contractor shall work with the Contract Administrator and the DPS to establish reasonable savings estimates for new prescriptive energy efficiency measures offered in Core Programs, prior to their inclusion in programs." (From the 2000 PSB Contract with the EEU Contractor, Attachment C "Performance Incentive Mechanism")

"When assessing the cost-effectiveness of efficiency measures, the Contractor shall utilize the Societal Test as described by the Board [PSB] in its April 16, 1990 Order in Docket No. 5270. The Contractor shall use statewide cost-effectiveness screening tools provided by the DPS in its planning and implementation activities. The Contractor shall use the externality values approved by the Board (currently 0.7 cents/kWh). The Contractor shall incorporate into its screening tools any new avoided costs and externality adjustments approved by the Board...Changes to existing measure characterizations and program assumptions, and all assumptions for new measures and programs, shall be coordinated with the DPS. All changes shall be documented in the Technical Reference Manual, including the basis for the new assumption." (From the 2003 PSB Contract with the EEU Contractor, Attachment I "Scope of Work.")

The DPS must provide an annual review of the EEU's energy savings claims and costs. By statute, the PSB must contract with an independent auditor for a triennial review of energy savings and cost-effectiveness of EEU programs. First report filed 12/02.

7. Results of program evaluation

The Report and Recommendations to the Vermont Public Service Board Relating to Vermont's Energy Efficiency Utility, 2002, available on the DPS website, includes many results of independent program evaluation overseen by the DPS.

The 2001 Annual Report of the EEU indicated that EVT spent \$8.5million and participants paid \$5.5million, for a total of \$14million, to achieve close to 37,000MWh of energy savings in 2001. Over their lifetime these measures are predicted to result in close to 545,000 MWh of savings. Measures also resulted in peak demand reduction of 4.2MW in summer and 6.6MW in winter, 2001.

The PSB, in 12/30/02 Order findings of fact, stated:

"In 2001, energy efficiency was obtained by the EEU at a cost of 2.6 cents per kilowatt-hour...using total costs for the EEU for that year, including participant and third-party investments in the cost of the measures installed, of \$14,014,124....The average delivered cost of purchased power for Vermont utilities...was 7.3 cents per kWh...the average retail rate...charged by Vermont electric utilities for delivered power was 10.6 cents per kWh."

"The economically achievable potential of energy efficiency in the state continues to far

exceed any level of savings that could be secured by the activity of the EEU at the budget levels proposed... Vermont needs to spend three to four times as much money as is currently devoted to the EEU budget to achieve the potential energy efficiency savings shown in the DPS Report."

"When Vermont purchases power from outside the state it does not generate as much employment as the EEU which is labor-intensive."

Energy efficiency investment made by businesses working with the EEU produced on average "an internal rate of return of 71 percent."

EEU assistance to Vermont dairy farmers resulted in "an average annual rate of return of 62 percent."

EEU assistance to Vermont ski operations yielded "an average annual rate of return of 67 percent."

Burlington Electric Department: After two years, BED acquired 4,754 annualized MWh savings. This was well over its three year goal of 4,148 MWh. An assessment by GDS Associates found that BED had adequate coordination with the EEU; BED is on track to meet its performance indicators; and there is not a significant increased administrative burden or reduced program benefit as a result of delivering programs only within its service territory.

8. Financial or performance incentives

Incentives for the Distribution utilities (from the 1999MOU)

When the EEU was created, the existing lost revenue adjustment for DU activity (known as ACE) was phased out under the terms of the MOU. The MOU anticipated the possible need to change the regulatory process "to allow DUs the reasonable opportunity to earn their allowed return, and set a process in motion to determine necessary changes by January 1, 2001." To date, no changes have been deemed necessary. However, it is an open question whether ACE might apply to DU efficiency investments, used to cope with Transmission and Distribution issues.

Incentives for the EEU

A certain portion of the EEU budget is retained by the PSB for incentive payments to the EEU for achievement of performance indicators. The total amount of potential incentive payments for the first three years was \$795,000, or about 2.9% of the contract value for 100% result attainment. The maximum performance incentive award for the second three years is \$1.28million.

Each performance indicator has a target, and a threshold below which no incentives are paid. Each indicator has a predetermined weight as a percent of the total potential award. A chart indicates the relationship between percent attainment and percent of possible incentive. The contract defines a documentation and verification process for each performance indicator. Incentive funds not released until after the end of the three-year contract.

Performance Indicators in the 2003-2005 contract include:
Cumulative total of annual electric savings (at generation and net of free riders);
Electric savings for projects under development;
Total Resource Benefits (electricity, fossil fuels, water, no other externalities);
Summer Peak kW Demand Savings; and
Residential and Business Markets (Individual and cross-program indicators).

In the new contract, performance awards for any performance indicator are also contingent on achievement of three minimum performance standards:

- Minimum electric savings;
- Minimum low-income spending; and
- Minimum participation by small, non-residential customers.

Programs

Seven initial Core Programs:

- Commercial/Industrial Market Opportunities
- Commercial/Industrial New Construction
- Dairy Farm Program (now integrated into C/I Market Opportunities)
- Residential New Construction (and remodeling)
- Residential Low Income (including Low Income Multifamily)
- Efficient Products Program
- Emerging Markets Initiatives (Residential and Commercial)

The 2003-2005 Contract reorganizes and re-names the core market energy efficiency services and initiatives as follows:

Business Sector

- Business New Construction (includes multi-family)
- Business Existing Facilities
- Customer Credit
- Commercial and Industrial Emerging Markets

Residential Sector

- Residential New Construction
- Residential Existing Buildings
- Energy Efficient Products
- Residential Emerging Markets

Resources

Vermont Public Service Board

www.state.vt.us/psb/news/EEU_info.htm

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Relevant docket proceedings and Contracts for EEU, Contract Administrator and Fiscal Agent

can be viewed at this website.

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Efficiency Vermont 2001: A Year of Progress and Success, March 2002, available at

www.encyvermont.com/about/annualreport2001.pdf

Vermont Dept of Public Service

802-828-2811, www.state.vt.us/psd/ee/ee.htm

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DPS, Report and Recommendations to the Vermont Public Service Board Relating to Vermont's Energy Efficiency Utility. May 29, 2002, available at

www.state.vt.us/psd/EEU2002Report/Report.PDF

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